EL 978318445US

100

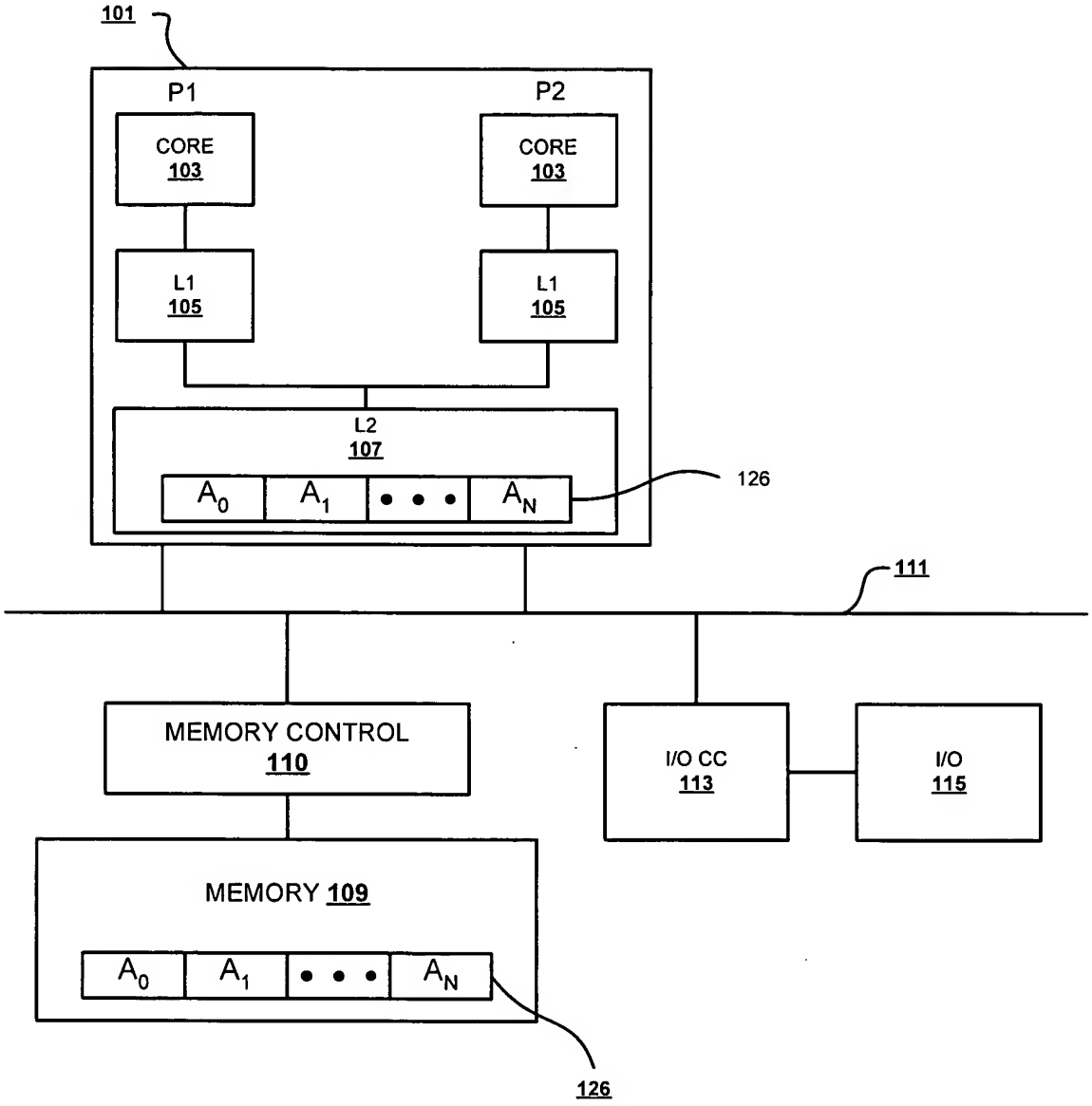

Figure 1

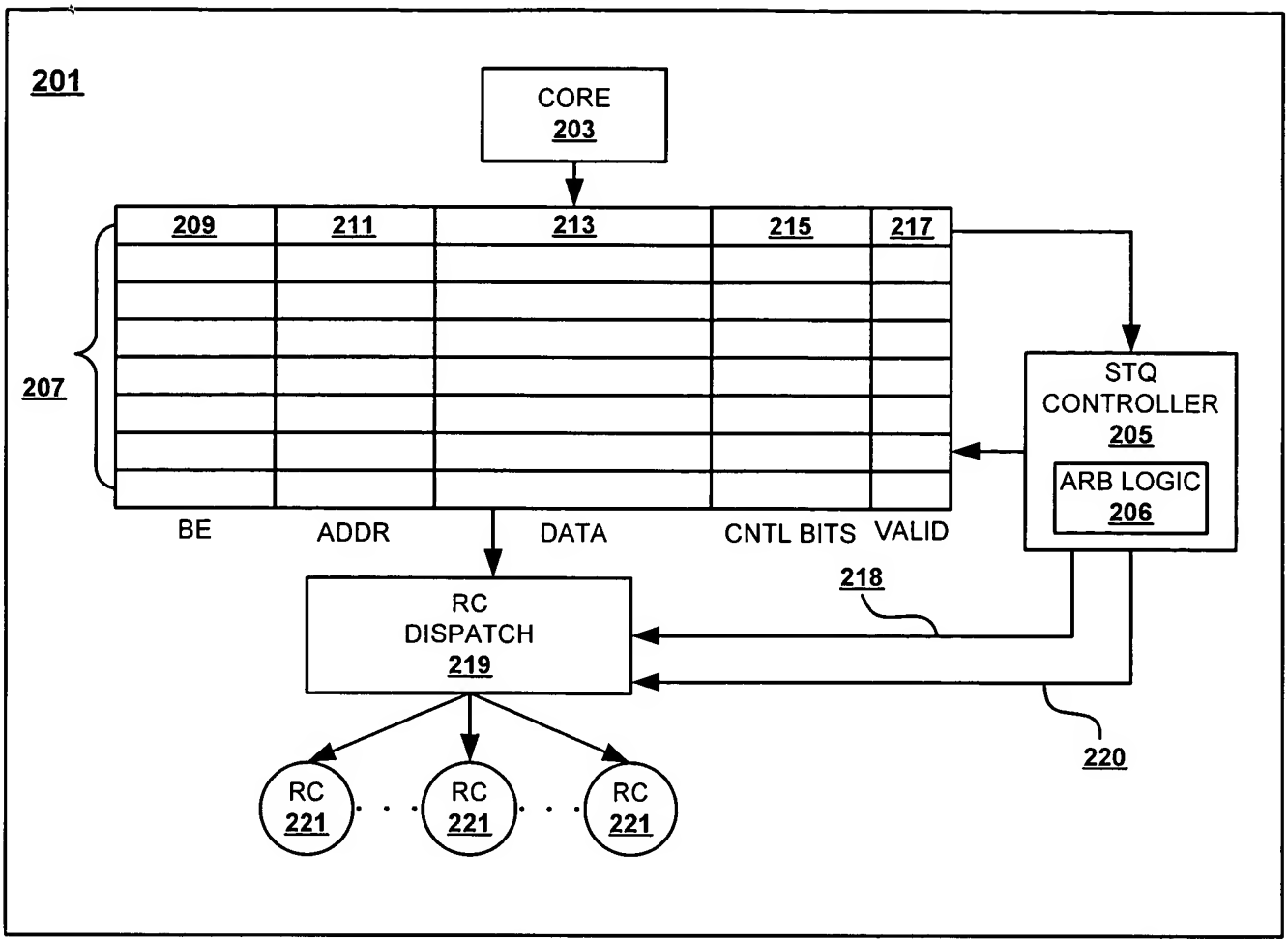

Figure 2
(Prior Art)

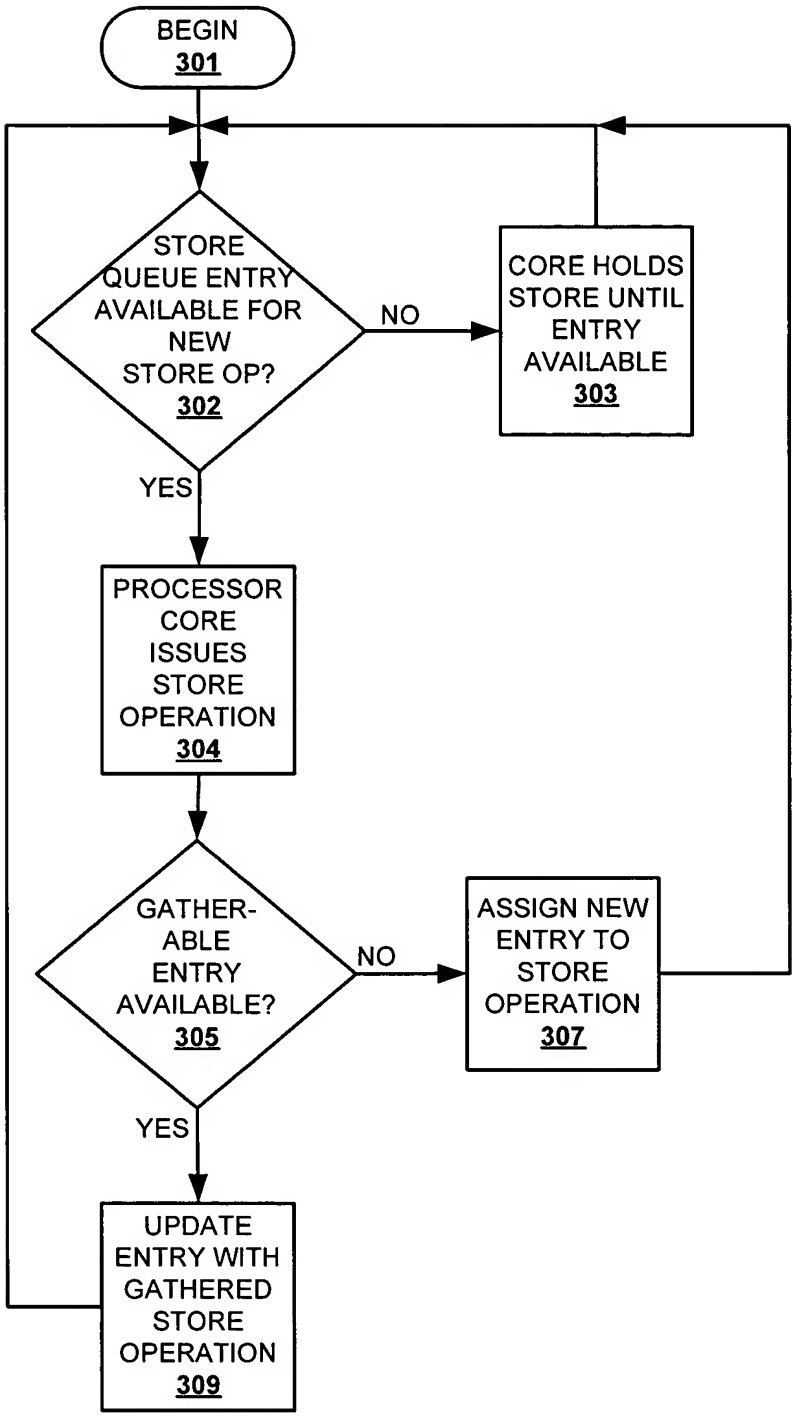

Figure 3A
(Prior Art)

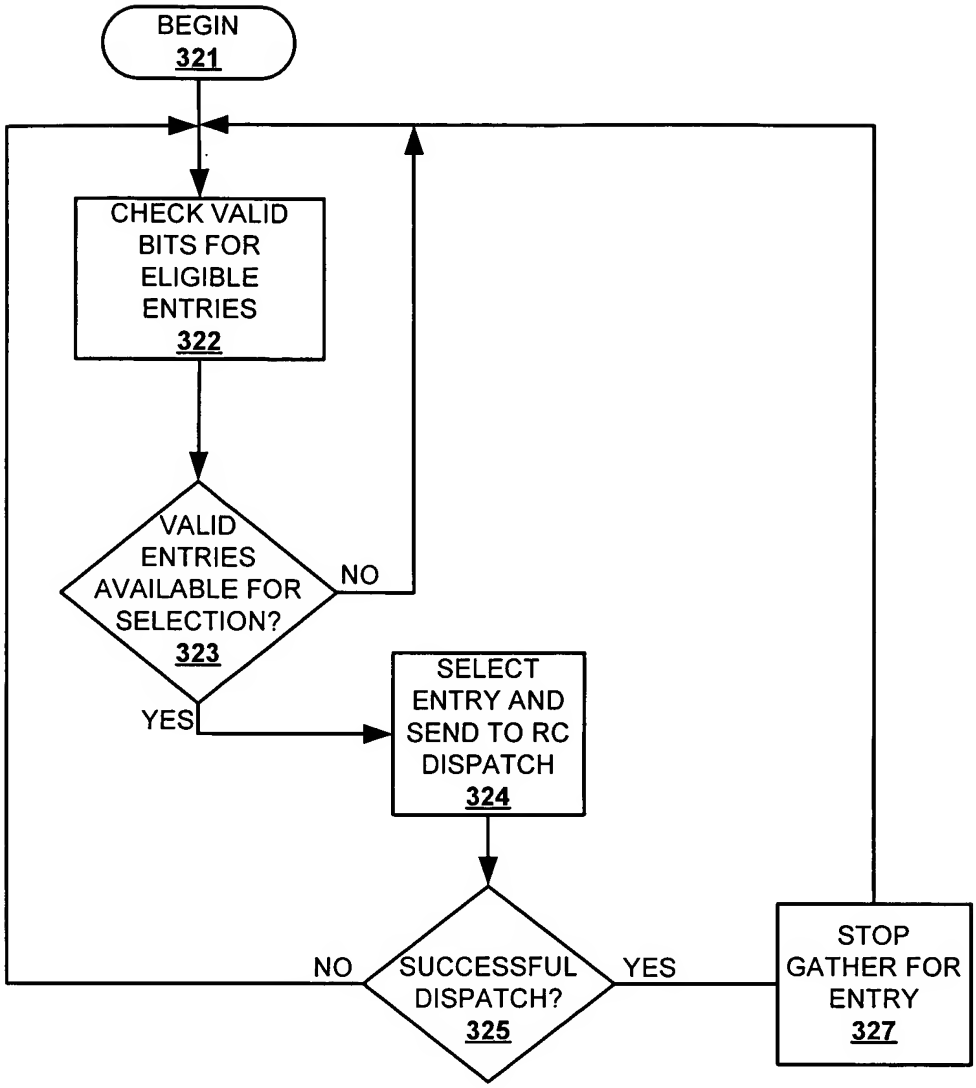

Figure 3B
(Prior Art)

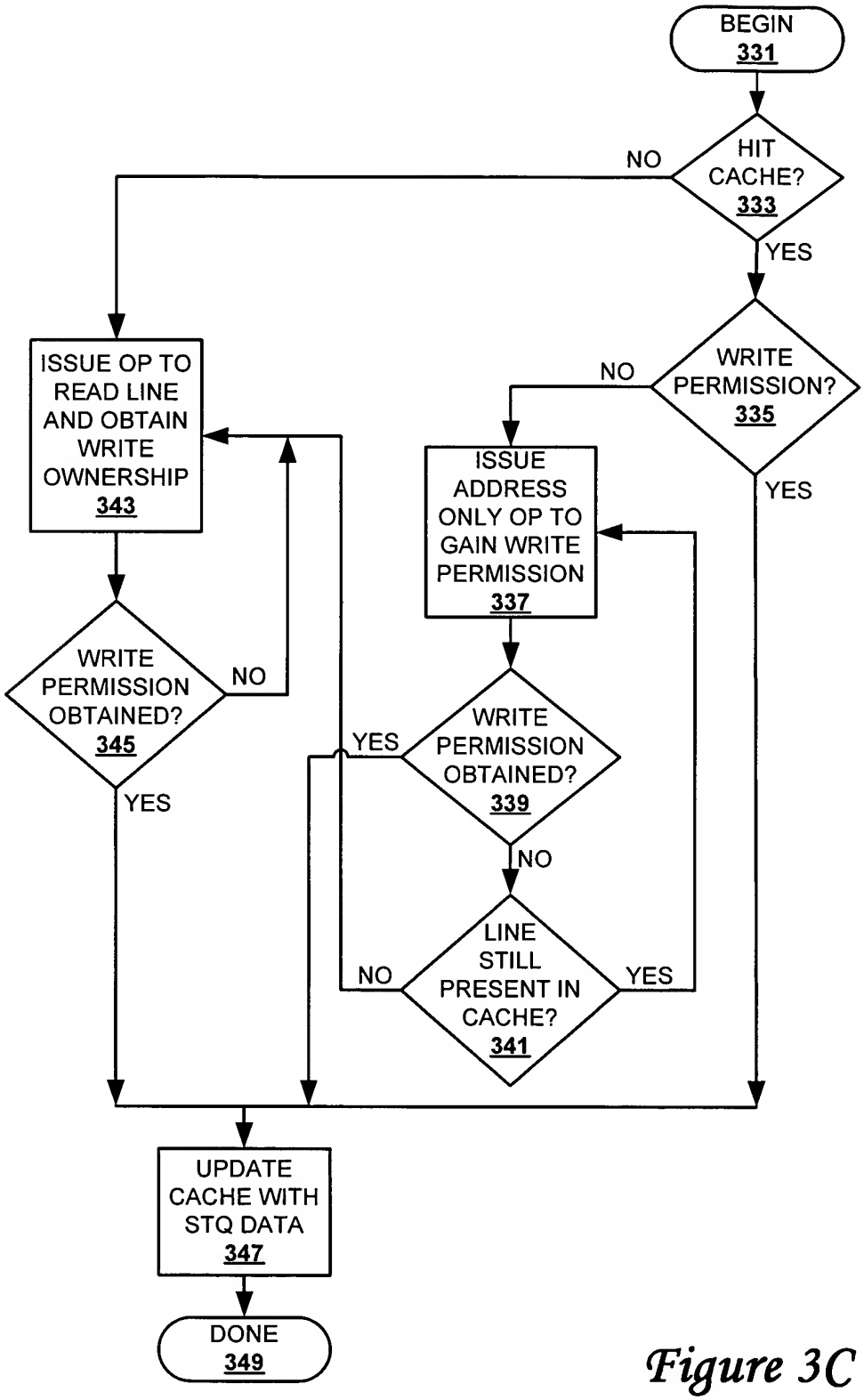

Figure 3C (Prior Art)

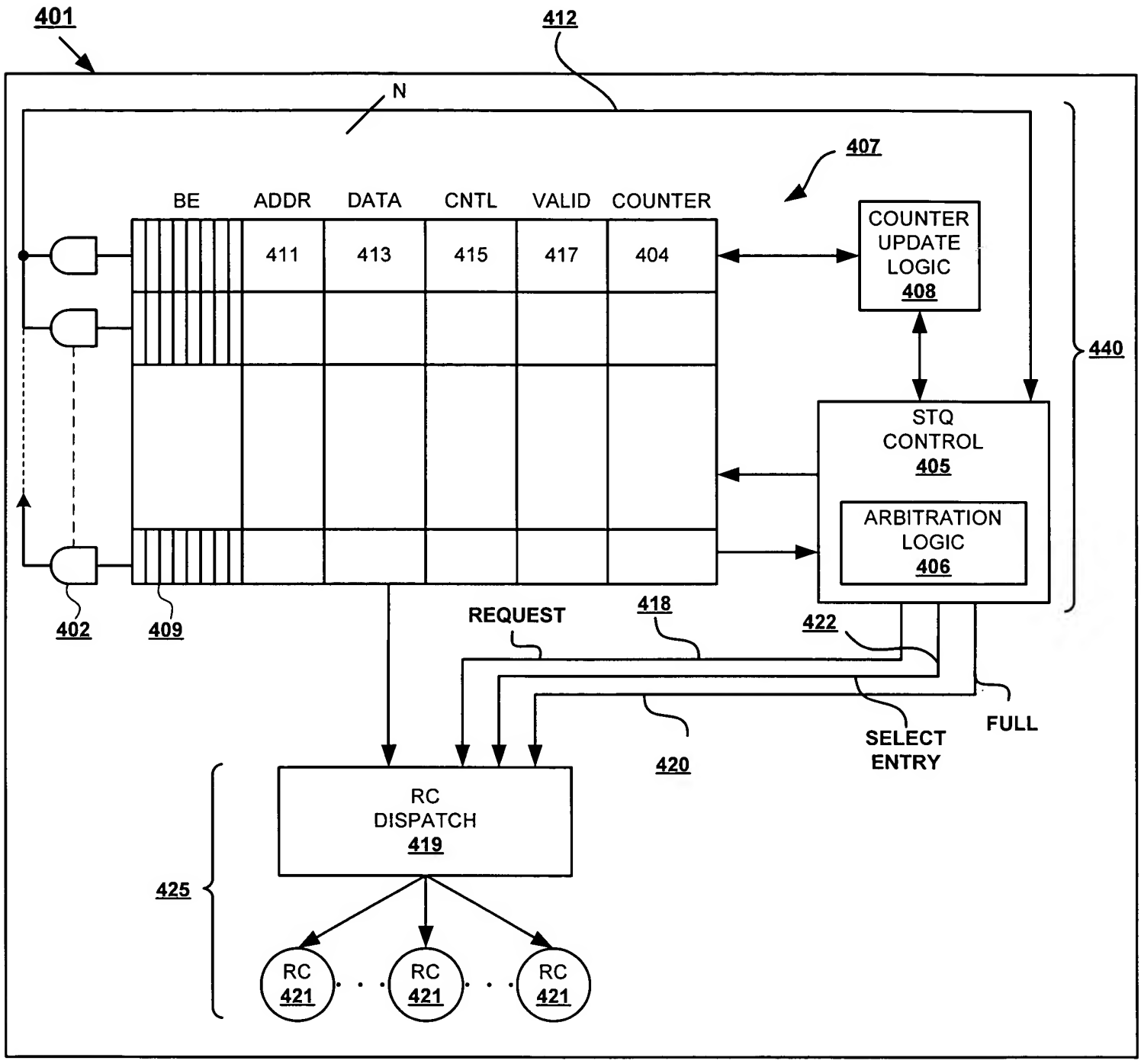
401
412
N
407
BE
ADDR
DATA
CNTL
VALID
COUNTER
411
413
415
417
404
COUNTER UPDATE LOGIC 408
440
STQ CONTROL 405
ARBITRATION LOGIC 406
402
409
REQUEST
418
422
FULL
SELECT ENTRY
420
RC DISPATCH 419
425
RC 421
RC 421
RC 421

Figure 4

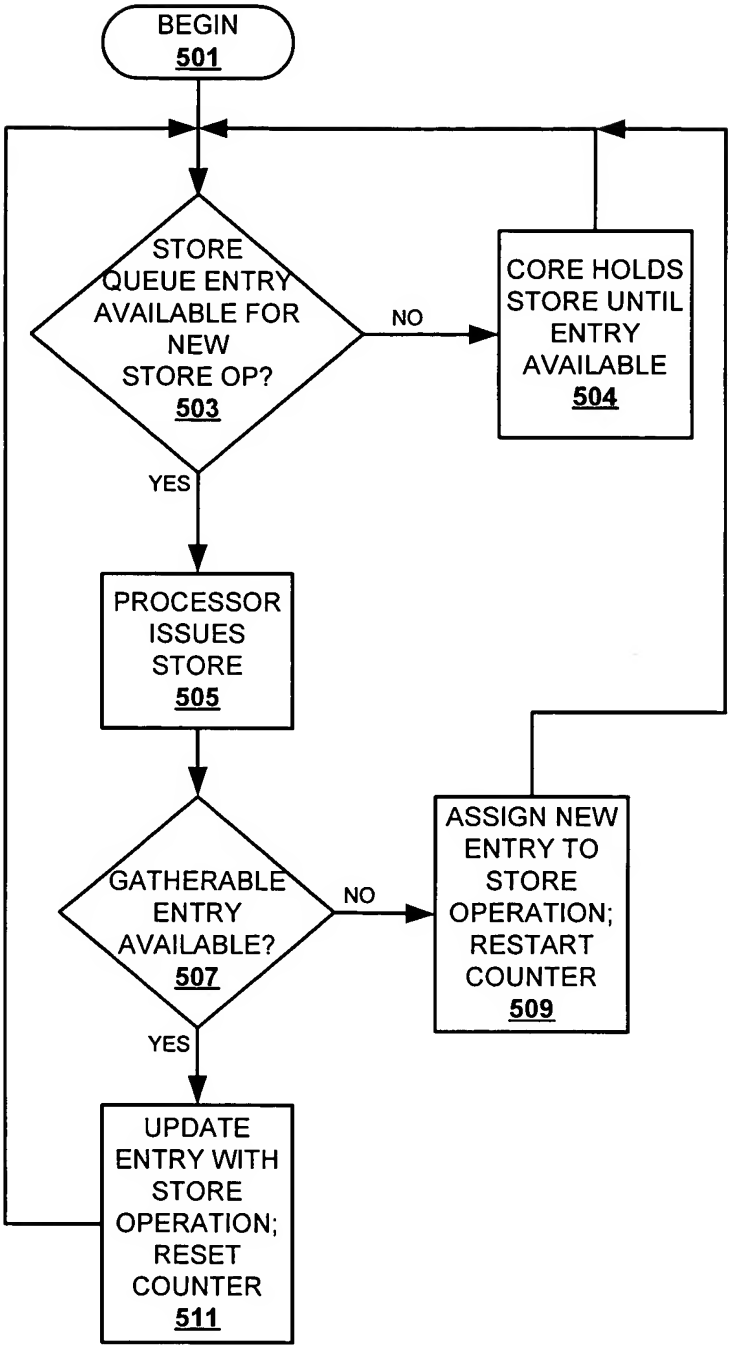
BEGIN
501
STORE QUEUE ENTRY AVAILABLE FOR NEW STORE OP?
503
NO
CORE HOLDS STORE UNTIL ENTRY AVAILABLE
504
YES
PROCESSOR ISSUES STORE
505
GATHERABLE ENTRY AVAILABLE?
507
NO
ASSIGN NEW ENTRY TO STORE OPERATION; RESTART COUNTER
509
YES
UPDATE ENTRY WITH STORE OPERATION; RESET COUNTER
511

Figure 5A

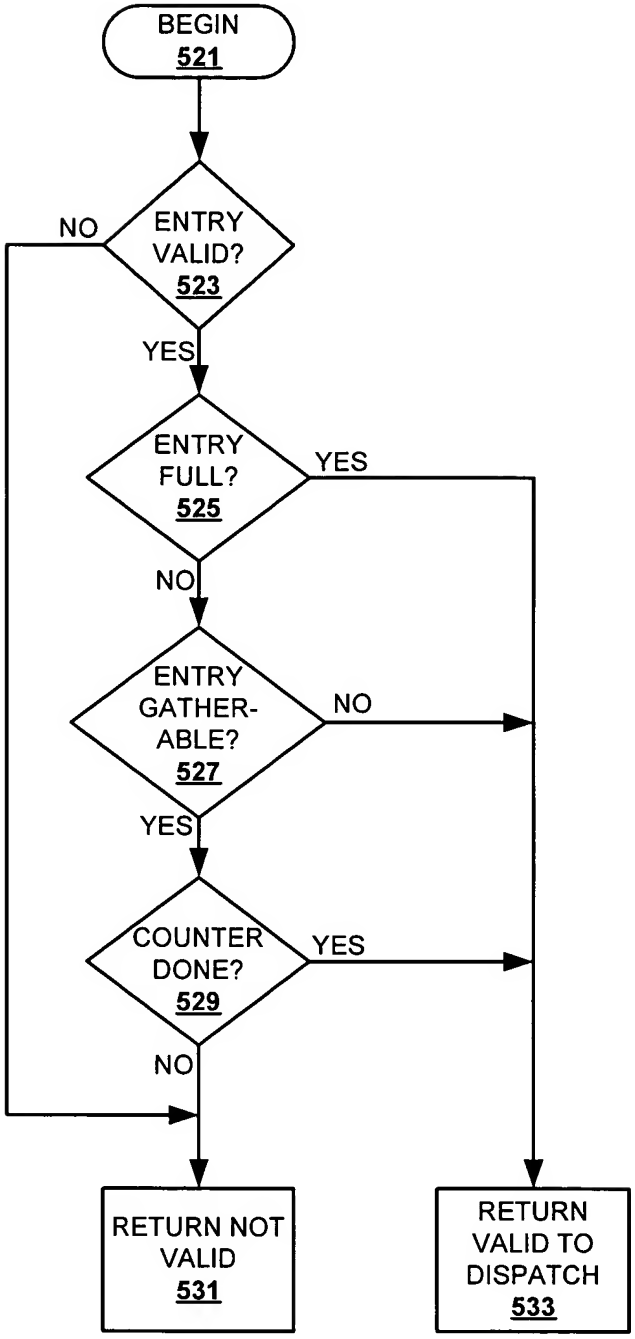
BEGIN
521
ENTRY VALID?
523
NO
YES
ENTRY FULL?
525
YES
NO
ENTRY GATHER-ABLE?
527
NO
YES
COUNTER DONE?
529
YES
NO
RETURN NOT VALID
531
RETURN VALID TO DISPATCH
533

Figure 5B